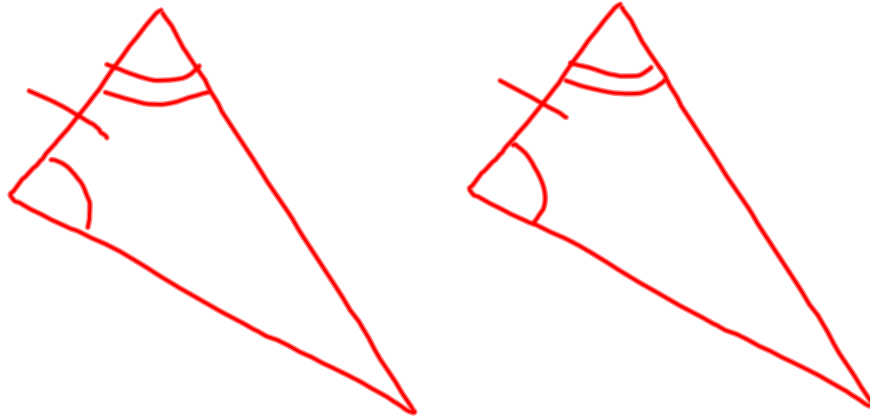


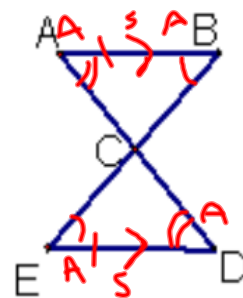
## 4.5 ASA, AAS, and HL

Postulate 4.3 ASA—If 2 angles and the included side of one  $\triangle$  are  $\cong$  to 2 angles and the included side of another triangle, then the triangles are  $\cong$ .



Nov 17-7:06 AM

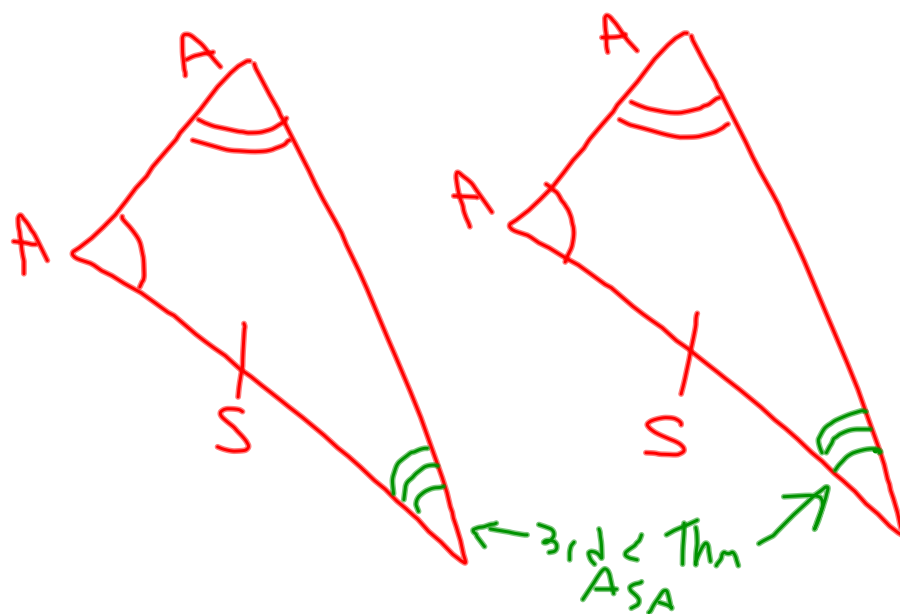
Given:  $\overline{AB} \parallel \overline{ED}$ ;  $\overline{AB} \cong \overline{ED}$   
 Prove:  $\triangle ABC \cong \triangle DEC$



- (1) ————— (1) Given  
 (2)  $\angle B \cong \angle E$  (2) If  $\parallel$ , alt. int.  $\angle$ s  $\cong$   
 $\angle A \cong \angle D$   
 (3)  $\triangle ABC \cong \triangle DEC$  (3) ASA

Nov 17-7:08 AM

Theorem 4.5 AAS—If 2 angles and a non-included side of one  $\Delta$  are  $\cong$  to 2 angles and a non-included side of another  $\Delta$ , then the  $\Delta$ s are  $\cong$ .



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Given:  $\angle K \cong \angle J$ ;  $\overline{KL} \cong \overline{JM}$   
 Prove:  $\overline{LN} \cong \overline{MN}$

$$\Delta KLN \cong \Delta JMN$$

S.

R.

①

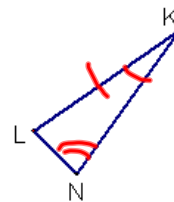
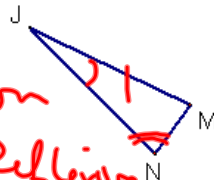
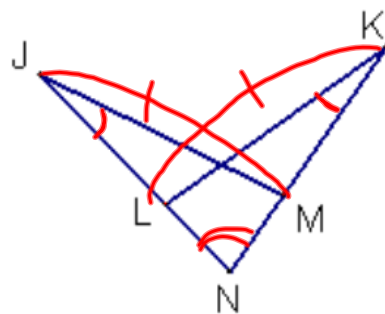
②  $\angle N \cong \angle N$ ③  $\Delta KLN \cong \Delta JMN$ ④  $\overline{LN} \cong \overline{MN}$ 

① Given

② Reflexive

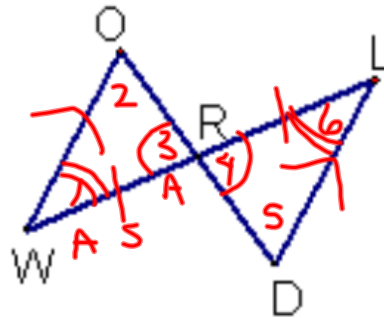
③ AAS

④ CPCTC



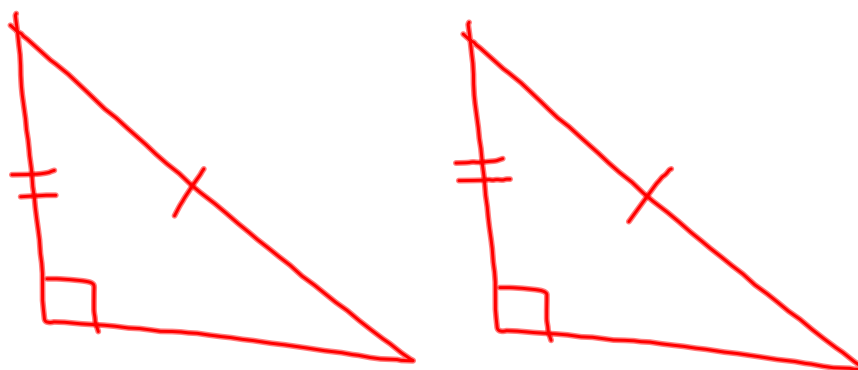
Nov 17-7:08 AM

Given:  $\overline{WO} \parallel \overline{LD}$ ; R is the midpoint of  $\overline{WL}$   
 Prove:  $\overline{OR} \cong \overline{DR}$



Nov 17-7:09 AM

HL (Hypotenuse-Leg)—If the hypotenuse and a leg of one right  $\Delta$  are  $\cong$  to the hypotenuse and one leg of another  $\Delta$ , then the  $\Delta$ s are  $\cong$ . (p.215)



Nov 17-7:10 AM

{ SSS  
SAS  
AAS  
HL  
ASA

Dec 1-8:14 AM

HW

p. 210-211 #s 4, 5, 7, 9, 11

(supp. Of  $\cong$   $\angle$ s are  $\cong$ )

Nov 17-7:10 AM